

CONFORMAL END-FIRE ARRAYS ON HIGH IMPEDANCE GROUND PLANE

ABSTRACT OF THE DISCLOSURE

5 A conformal end-fire antenna with a high impedance
ground surface structure and an array of radiating elements
formed thereon. The ground surface structure includes an
array of metal protrusions on a electrically conductive
sheet, the metal protrusions arranged in a two-dimensional
lattice. The ground surface structure acts as a magnetic
surface at an RF frequency band of interest, functioning as
10 an electrical short at DC, and as a mirror which reflects
an RF field in the frequency band with virtually no phase
reversal.

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